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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/042,525

10/19/2001

Eric K. Larson

04513-023001

7279

26161

7590

03/07/2003

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EXAMINER

FRANK, RODNEY T

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,525	LARSON ET AL.	
	Examiner	Art Unit	
	Rodney T. Frank	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, claims 12-16 in Paper No. 7 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (U.S. Patent Number 4,535,732; hereinafter referred to as Nakano), and further in view of Zagone (U.S. Patent Number 6,434,476). Nakano discloses a valve disabling device for internal combustion engines. Specifically, in regard to claim 12, as seen in figure 11, Nakano discloses an apparatus comprising:

A coupling having two open ends adapted for connection to upstream and downstream tubes of a pulsating oil circulation system of an engine and a channel configured to direct oil to flow past a temperature sensor (35) connected to a sensing circuit (134), the sensing circuit comprising elements connected to determine a change in a voltage across the temperature sensor at to compare the change to a threshold. Nakano discloses the structure, as seen in figure 11 and described in column 12 lines 10-52, of the claim with a coupling with a means for transporting oil across the temperature sensor. However, some of the specifics of the sensing circuit are not clearly disclosed in the Nakano reference.

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Zagone, however, discloses a high voltage fault discrimination for EGR an EGR temperature sensor. Specifically with respect to the sensing circuit of claim 12 of the application, claim 8 of the Zagone reference discloses a system comprising an oil temperature sensor in communication with the engine control module (ECM) wherein the ECM converts the signal of the oil temperature sensor to corresponding digital values, compares those value to a programmable threshold (see claim 8). The motivation to combine the teaching of Zagone with the teachings of Nakano is that the Zagone method of oil temperature sensing would be an improvement over the previously disclosed method of Nakano and the sensing method of Zagone would provide a more accurate reading method than that disclosed by Nakano.

In regard to claims 13 and 14, though a sample and hold circuit and a delay circuit are not specifically disclosed, a voltage value storage means is disclosed and this is a design choice that does not depart from the spirit of the invention disclosed in the references. Also, a means for counting is disclosed whereby the number of counts serves as a timing means for the circuit (see column 5 lines 30-35).

In regard to claim 15, Zagone specifically discloses the use of an analog to digital controller (see column 5 lines 30-35).

In regard to claim 16, though these ports are not specifically disclosed, these are design choices for the ECM that would be obvious to one of ordinary skill in the art to incorporate depending upon the application of the user.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kern et al. (U.S. Patent Number 6,318,332) discloses a method for monitoring adequate oil lubrication of an internal combustion engine and an engine for utilizing the method.

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Koerner et al. (U.S. Patent Number 6,386,171) discloses an oil delivery system with oil temperature compensation. Sawatari et al. (U.S. Patent Number 4,677,847) discloses an automotive engine oil monitoring system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney T. Frank whose telephone number is (703) 306-5717. The examiner can normally be reached on M-F 9am -5:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

RTF
March 3, 2003

HELEN KWOK
PRIMARY EXAMINER

